

CLAIMS

1. A nitrile group-containing highly saturated copolymer rubber comprising (a) 0 to 20% by weight of 1,3-butadiene units, (b) 0 to 50% by weight of saturated 1,3-butadiene units, (c) 40 to 50% by weight of α, β -ethylenically unsaturated nitrile monomer units, and (d) 10 to 35% by weight and at least 8% by mol of other monomer units, wherein the sum of 1,3-butadiene units (a) and saturated 1,3-butadiene units (b) is in the range of 20 to 50% by weight.

2. The nitrile group-containing highly saturated copolymer rubber according to claim 1, which comprises (a) 0 to 15% by weight of 1,3-butadiene units, (b) 10 to 45% by weight of saturated 1,3-butadiene units, (c) 40 to 48% by weight of α, β -ethylenically unsaturated nitrile monomer units, and (d) 11 to 33% by weight and 8 to 30% by mol of other monomer units, wherein the sum of 1,3-butadiene units (a) and saturated 1,3-butadiene units (b) is in the range of 23 to 47% by weight.

3. The nitrile group-containing highly saturated copolymer rubber according to claim 2, which comprises (a) 0 to 10% by weight of 1,3-butadiene units, (b) 15 to 40% by weight of saturated 1,3-butadiene units, (c) 41 to 46% by weight of α, β -ethylenically unsaturated nitrile monomer units, and (d) 12 to 30% by weight and 9 to 30% by mol of other monomer units, wherein the sum of 1,3-butadiene units (a) and saturated 1,3-butadiene units (b) is in the range of 25 to 30% by weight.

4. The nitrile group-containing highly saturated copolymer rubber according to any one of claims 1 to 3, wherein the sum of monomer units (c) and monomer units (d) is in the range of 50 to 80% by weight.

5. The nitrile group-containing highly saturated copolymer rubber according to any one of claims 1 to 3, wherein the sum of monomer units (c) and monomer units (d) is in the range of 55 to 75% by weight.

6. The nitrile group-containing highly saturated

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copolymer rubber according to any one of claims 1 to 5, which is a product prepared by hydrogenating a copolymer of 1,3-butadiene, an α, β -ethylenically unsaturated nitrile monomer, and a monomer copolymerizable with 1,3-butadiene and the α, β -ethylenically unsaturated nitrile monomer.

7. The nitrile group-containing highly saturated copolymer rubber according to any one of claims 1 to 6, wherein α, β -ethylenically unsaturated nitrile monomer is selected from acrylonitrile, α -chloroacrylonitrile, α -bromoacrylonitrile, methacrylonitrile and ethacrylonitrile.

8. The nitrile group-containing highly saturated copolymer rubber according to any one of claims 1 to 7, which has a number average molecular weight of 10,000 to 2,000,000.

9. A crosslinkable rubber composition comprising 100 parts by weight of the nitrile group-containing highly saturated copolymer rubber as claimed in any one of claims 1 to 8, and 0.1 part to 10 parts by weight of a sulfur-containing crosslinking agent or 0.5 part to 8 parts by weight of an organic peroxide crosslinking agent.

10. A crosslinked rubber product made by crosslinking the crosslinkable rubber composition as claimed in claim 6 or 7.
